

Public Domain Songs

Part I

Author: Laurence D. Finston
Copyright 2021 © Laurence D. Finston
Contact: Laurence.Finston@gmx.de

This file is part of the Songlist package.

Songlist is free software; you can redistribute it and/or modify it under the terms of the GNU General Public License as published by the Free Software Foundation; either version 3 of the License, or (at your option) any later version. See the end of this document for the license.

Songlist is available for downloading from <https://github.com/lfinston/Songlist>.

Lead sheets for songs in the public domain in the USA and Germany are available for downloading from https://github.com/lfinston/Songlist/tree/main/lead_sheets.

Table of Contents

Chord Symbols Explained	1
1. April Showers	2
2. By The Light Of The Silvery Moon	6
3. Carolina in the Morning	8
4. Chicago (That Toddling Town)	11
Contes d'Hoffmann, Les	13
5 Barcarole (Belle nuit, ô nuit d'amour)	13
6 Oiseaux dans les charmille, Les	17
7. Cup of Coffee, a Sandwich and You, A	20
Don Giovanni	22
8 Là ci darem la mano	22
Index	27
Copying	28

Chord Symbols Explained

C ^o	C alone, i.e., not a chord (C)
C	C major (C-E-G)
C ₄	C suspended 4 th (C-F-G)
C _{4- 3}	C suspended 4 th resolving to 3 rd (C-F-G – C-E-G)
C ₄₋ C ₃	ibid.
C/E	C major with E in bass (E-C-G or E-G-C)
C ⁶	C sixth (C-E-G-A)
C ₉	C add ninth (C-E-G-D)
C ₉ ⁶	C six-nine (C-E-G-A-D)
C ₅	C major without 5 th (C-E)
C [△]	C major 7 th (C-E-G-B)
C ₉ [△]	C major 7 th with added 9 th (C-E-G-B-D)
C ⁺	C augmented (C-E-G♯)
C ⁷	C dominant 7 th (C-E-G-B♭)
C ⁹	C dominant 9 th (C-E-G-B♭-D)
C ¹¹	C dominant 11 th (C-F-G-B♭-D)
C ¹³	C dominant 13 th (C-E-G-B♭-D-A)
C _{b9} ⁷	C dominant 7 th with flat 9 th (C-E-G-B♭-D♭)
C ⁷⁺	C dominant 7 th with augmented 5 th (C-E-G♯-B♭)
C ₅ _{b9} ⁹	C dominant 9 th without 3 rd and 5 th (C-B♭-D)
C ⁹⁺	C dominant 9 th with augmented 5 th (C-E-G♯-B♭-D)
Cm [△]	C minor with major 7 th (C-E♭-G-B)
C [△]	C major 7 th (C-E-G-B)
Cm [△]	C minor with major 7 th (C-E♭-G-B)
C [○]	C diminished 7 th (C-E♭-G♭-B♭)
C ₇ [○]	C diminished triad, i.e., without diminished 7 th (C-E♭-G♭)
C ^ø	C half-diminished 7 th (C-E♭-G♭-B♭)

1

Emo ① ~~C/D~~ April Shower ② D7/C Lead Sheet
 C#m/B5 ③ G/D C#D

④ D4: ⑤ G ⑥ D6 ⑦ D7
 G ⑧ G ⑨ G ⑩ G ⑪ G ⑫ G

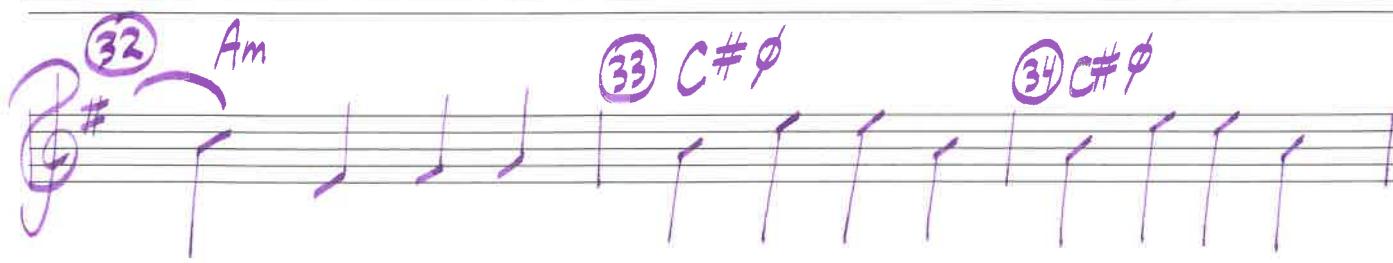
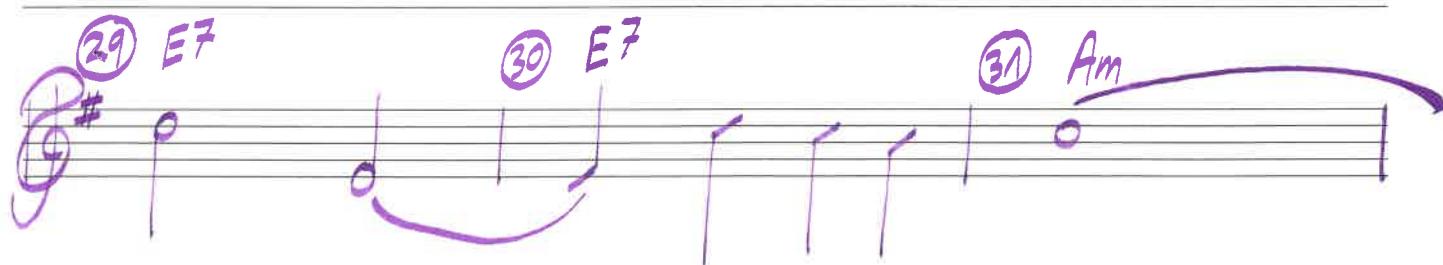
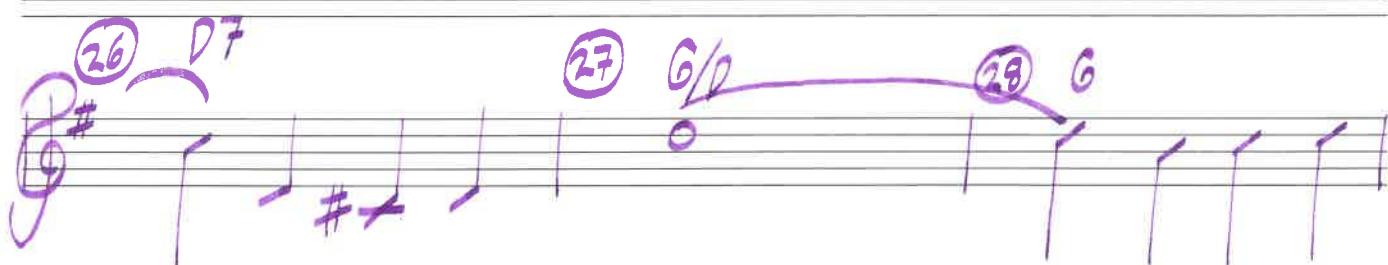
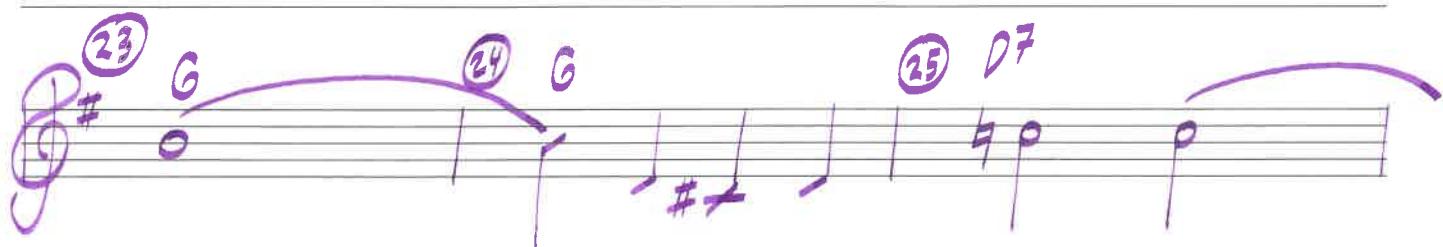
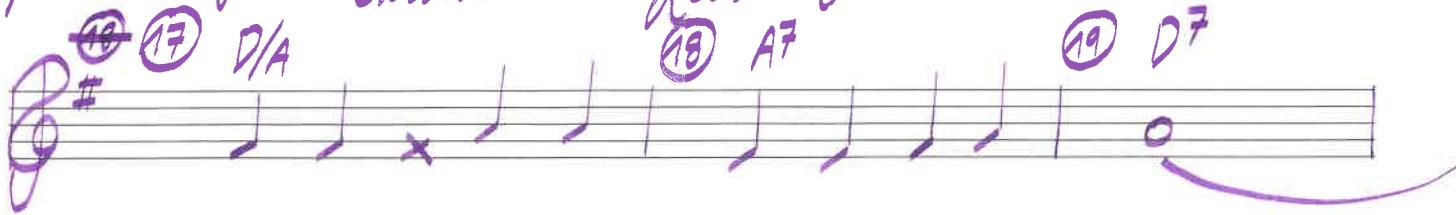
⑦ G ⑧ D7 ⑨ G ⑩ G ⑪ G ⑫ G

⑩ D6 ⑪ D7 ⑫ G ⑬ G ⑭ Bm/F# ⑮ F#B9
 G ⑯ G ⑰ G ⑱ G ⑲ G ⑳ G

⑬ Bm ⑭ Em6/B ⑮ Bm/F# ⑯ F#B9
 G ⑰ G ⑱ G ⑲ G ⑳ G

⑮ Bm ⑯ E7 ⑰ G ⑱ G ⑲ G ⑳ G

2 $\frac{5}{2}$ April Showers Lead Sheet



3 $\frac{2}{4}$ April Showers Lead Sheet

(35) D⁷/C C[#]/G[#] Am E⁷ (36) D⁷ (37) D⁷

(38) (39) G (40) G

(41) E⁷ (42) E⁷ (43) Am/C

(44) Am/C (45) Am (46) A⁷

(47) G/D E_m (48) A⁹ (49) Am Am⁷

(50) D⁷ (51) G E_m⁶ (52) D⁷



4

2
2.
F# 53 6

April Showers 54 6

Lead Sheet 7

This image shows a handwritten musical lead sheet. At the top left, there's a blue number '4'. To its right, a treble clef is followed by a '2.' and a '2.'. Below the clef is a key signature of one sharp (F#) with a circled '53' next to it. A horizontal line connects this to a note on the staff. The staff has six horizontal lines. The first note is a '6'. The second note is circled with a circled '54' above it, with a vertical line connecting it to the staff. The third note is a '6'. There are two rests: a brace over two spaces and a single dash. To the right of the staff, the words 'Lead Sheet' are written above a circled '7'. Below the staff are ten blank five-line staves for continuation.



C By the Light of the Silvery Moon Lead Sheet

1

Soprano

1 E^b 2 G⁷ 3 C/E 4 Dm 5 Dm/F 6 E7 7 A7# 8 Dm 9 C 10 G7/D 11 C/E 12 G/D 13 D7 14 G 15 Am 16 G7 17 Refrain C 18 C 19 D7 20 D7 21 G7 22 G7 23 C/C# 24 G7/D 25 C 26 C 27 F 28 Dm 29 C 30 Am 31 Bb7 32 A-A7/G 33 D7/F# 34 G7

26 F 27 A7 28 Dm 29 C 30 Am 31 Bb7 32 A-A7/G 33 D7/F# 34 G7

By the Light of the Silvery Moon Lead Sheet

2

C

$\text{G}^3 \text{C}$

F $\text{C}_{\frac{3}{4}}$ $\text{D-D-S-} \text{C}_{\frac{2}{5}}$ $\text{F}_{\frac{1}{2}}$ $\text{E}_{\frac{1}{2}}$



CAROLINA IN THE MORNING

SONG

Lyric by
GUS KAHN

Music by
WALTER DONALDSON

C.
Moderato

VOICE Am C Am D⁷ G⁷ C

PIANO { f

Verse

C Am C E⁷/B^b A⁷ Dm E⁷/G C

Wish-ing is good-time wast-ed Still it's a hab-it they say
 Dream-ing was meant for night-time I live in dreams all the day

p

C C^{m7}/E^b/D^b G⁹ G⁷ G⁷+ C⁶

Wish-ing for sweets I've tast-ed That's all I do-all day
 J know it's not the right time But still I dream a-way

Copyright MCMXXII by JEROME H. REMICK & Co., New York & Detroit

263-4

Copyright, Canada, MCMXXII by Jerome H. Remick & Co.

Propiedad para la Republica Mexicana de Jerome H. Remick & Co., New York y Detroit. Depositada conforme a la ley
 MADE IN U.S.A.

C Am C E/D~~B~~ D9 G 7-6-5

May - be there's noth - ing in wish - ing But speak - ing of wish - ing I'll say
What could be sweet - er than dream - ing Just dream - ing and drift - ing a ~ way

The musical score consists of two staves. The top staff is for the voice, starting with a C major chord (C, E, G) followed by an Am chord (A, C, E). The lyrics "May - be there's noth - ing in wish - ing But speak - ing of wish - ing I'll say" are written below the notes. The next chord is C, followed by E/D (with a crossed-out B) and D9. The final chord is G 7-6-5. The bottom staff is for the piano, showing a bass line with various notes and rests.

Carolina in the Morning Lead Sheet A/G C#^o

A handwritten musical score consisting of six staves of music. The music is primarily in common time (indicated by a 'C') and includes several measures in 6/8 time (indicated by a '6/8' over a 'C'). The key signature varies throughout the piece, with sharps and flats appearing in different sections. Chords labeled include G, A/G, C/G, Dm, 67, Dm7, Dm6/A, C7, C/G, C/E, F, A7, D7, G, E7, Am, Dm7, 67, C, 4/G, C6, C#7, Dm, Dm7, 67, Dm6/A, Dm7, Dm6/A, C, 67, C, D7, G, C7, F#7, 67, F, D7, G, C, Am, C, Am, D7, 67, C, * (crossed out), C7, F, D7, G, C, Am, C, Am, D7, 67, C, Am, D7, G, C, Am, C, C, - ::.

C \$
Intro Chicago (That Toddling Town) Lead Sheet 1

4 Verse Bbm Bb⁷ " 5 Eb Cm 3-
 - 3- 3- 3- | 3- 3- 3- | 3- 3- 3- | 3- 3- 3- |

6 Eb 3- Cm 3- 7 F7 8 Fm F9/C " 3- 3-
 Fm7 Bb13 10 Fm7 Bb7 3- 3- 3- | 3- 3- 3- |

9 Fm7 Bb13 11 Eb Eo 12 Fm7/Ab Bb9/F " 13 Eb Cm 3-
 3- 3- 3- 3- 3- 3- 3- 3- 3- 3- | 3- 3- 3- 3- 3- 3- |

14 Eb Cm 3- 15 F9 16 Fm F9/C " 3- 3-
 3- 3- 3- 3- 3- 3- 3- 3- 3- | 3- 3- 3- 3- 3- 3- |

17 Fm7 Bb13 18 Fm7 Bb13 Bb9 19 Eb Eo
 3- 3- 3- 3- 3- 3- 3- 3- 3- 3- 3- | 3- 3- 3- 3- 3- 3- 3- 3- |

20 Fm7 Bb13 Bb9 21 Refrain 22 Eb A 23 Eb G
 3- 3- 3- 3- 3- 3- 3- 3- 3- 3- 3- | 3- 3- 3- 3- 3- 3- 3- 3- |

24 Fm7 Bb9 25 Fm7 Bb9 26 Fm7 Bb9
 3- 3- 3- 3- 3- 3- 3- 3- 3- 3- 3- | 3- 3- 3- 3- 3- 3- 3- 3- |

27 Eb/G F#o 28 Fm7 Bb9 29 Eb A 30 Eb A
 3- 3- 3- 3- 3- 3- 3- 3- 3- 3- 3- | 3- 3- 3- 3- 3- 3- 3- 3- |

31 F9 F7 32 Eb G 33 Eb D 34 Eb C
 3- 3- 3- 3- 3- 3- 3- 3- 3- 3- 3- | 3- 3- 3- 3- 3- 3- 3- 3- |

Chicago (That Fiddling Town) Lead Sheet [2]

Handwritten musical lead sheet for "Chicago (That Fiddling Town)" in 2/4 time, key of B-flat major. The lead sheet consists of eight staves of music, numbered 32 through 54. The chords and markings include:

- Staff 1: 32. F⁹, 33. F⁷ E^o, 34. F^{m7} B^{b9}, 35. G^{m7} C⁷, 36. F^{m7} B^{b7} B^{bM}, 37. E^{bΔ} E^b, 38. E^{bΔ}, 39. F^{m7} B^{b7}, 40. F^{m7} B^{b9}.
- Staff 2: 41. F^{m7} B^{b9}, 42. D^{m7} G⁷, 43. C^{m7}, 44. C⁷, 45. A^{bΔ}, 46. A^{bΔ}, 47. D^{b9}, 48. E^{b6}, 49. F^{#o}, 50. B^{b7}/F, 51. B^{bM} B^{b7}.
- Staff 3: 51. E^b, 52. F^{m7} B^{b13} B^{bM}, 53. E^b, 54. E^{b9}, D.C.



8

Barcarolle Lead Sheet

11

mezzo



Barkarole Lead Sheet

2

24 E7 6- 5 25 E7 6- 5 26 A

27 A° 28 A 29 A° 29 A°

30 A 31 A° 32 D 33 A°

34 A° 35 D 36 D

37 A° 38 A° 39 A° 40 Em 6- 5

41 D 42 A° 43 A°



3

Em Barbarale Lead Sheet

44 | 4- 3 45 D | 4- 3 46 A7 6- 5

47 D7- 6- 5 48 A7 49 D

50 A7 51 D 52 D 53 A7 54 D 55 D 56 D 57 D Em 5

58

59

60

61

62

63

64

65

66

67

68

69

70

71

72

73

74

75

76

77

78

79

80

81

82

83

84

85

86

87

88

89

90

91

92

93

94

95

96

97

98

99

100

101

102

103

104

105

106

107

108

109

110

111

112

113

114

115

116

117

118

119

120

121

122

123

124

125

126

127

128

129

130

131

132

133

134

135

136

137

138

139

140

141

142

143

144

145

146

147

148

149

150

151

152

153

154

155

156

157

158

159

160

161

162

163

164

165

166

167

168

169

170

171

172

173

174

175

176

177

178

179

180

181

182

183

184

185

186

187

188

189

190

191

192

193

194

195

196

197

198

199

200

201

202

203

204

205

206

207

208

209

210

211

212

213

214

215

216

217

218

219

220

221

222

223

224

225

226

227

228

229

230

231

232

233

234

235

236

237

238

239

240

241

242

243

244

245

246

247

248

249

250

251

252

253

254

255

256

257

258

259

260

261

262

263

264

265

266

267

268

269

270

271

272

273

274

275

276

277

278

279

280

281

282

283

284

285

286

287

288

289

290

291

292

293

294

295

296

297

298

299

300

301

302

303

304

305

306

307

308

309

310

311

312

313

314

315

316

317

318

319

320

321

322

323

324

325

326

327

328

329

330

331

332

333

334

335

336

337

338

339

340

341

342

343

344

345

346

347

348

349

350

351

352

353

354

355

356

357

358

359

360

361

362

363

364

365

366

367

368

369

370

371

372

373

374

375

376

377

378

379

380

381

382

383

384

385

386

387

388

389

390

391

392

393

394

395

396

397

398

399

400

401

402

403

404

405

406

407

408

409

410

411

412

413

414

415

416

417

418

419

420

421

422

423

424

425

426

427

428

429

430

431

432

433

434

435

436

437

438

439

440

441

442

443

444

445

446

447

448

449

450

451

452

453

454

455

456

457

458

459

460

461

462

463

464

465

466

467

468

469

470

471

472

473

474

475

476

477

478

479

480

481

482

483

484

485

486

487

488

489

490

491

492

493

494

495

496

497

498

499

500

501

502

503

504

505

506

507

508

509

510

511

512

513

514

515

516

517

518

519

520

521

522

523

524

525

526

527

528

529

530

531

532

533

534

535

536

537

538

539

540

541

542

543

544

545

546

547

548

549

550

551

552

553

554

555

556

557

558

559

560

561

562

563

564

565

566

567

568

569

570

571

572

573

574

575

576

577

578

579

580

581

582

583

584

585

586

587

588

589

590

591

592

593

594

595

596

597

598

599

600

601

602

603

604

605

606

607

608

609

610

611

612

613

614

615

616

617

618

619

620

621

622

623

624

625

626

627

628

629

630

631

632

633

634

635

636

637

638

639

640

641

642

643

644

645

646

647

648

649

650

651

652

653

654

655

656

657

658

659

660

661

662

663

664

665

666

667

668

669

670

671

672

673

674

675

676

677

678

679

680

681

682

683

684

685

686

687

688

689

690

691

692

693

694

695

696

697

698

699

700

701

702

703

704

705

706

707

708

709

710

711

712

713

714

715

716

717

718

719

720

721

722

723

724

725

726

727

728

729

730

731

732

733

734

735

736

737

738

739

740

741

742

743

744

745

746

747

748

749

750

751

752

753

754

755

756

757

758

759

760

761

762

763

764

765

766

767

768

769

770

771

772

773

774

775

776

777

778

779

780

781

782

783

784

785

786

787

788

789

790

791

792

793

794

795

796

797

798

799

800

801

802

803

804

805

806

807

808

809

810

811

812

813

814

815

816

817

818

819

820

821

822

823

824

825

826

827

828

829

830

831

832

833

834

835

836

837

838

839

840

841

842

843

844

845

846

847

848

849

850

851

852

853

854

855

856

857

858

859

860

861

862

863

864

865

866

867

868

869

870

871

872

873

874

875

876

877

878

879

880

881

882

883

884

885

886

887

888

889

890

891

892

893

894

895

896

897

898

899

900

901

902

903

904

905

906

907

908

909

910

911

912

913

914

915

916

917

918

919

920

921

922

923

924

925

926

927

928

929

930

931

932

933

934

935

936

937

938

939

940

941

942

943

944

945

946

947

948

949

950

951

952

953

954

955

956

957

958

959

960

961

962

963

964

965

966

967

968

969

970

971

972

973

974

975

976

977

978

979

980

981

982

983

984

985

986

987

988

989

990

991

992

993

994

995

996

997

998

999

1000

Barkarole Lead Sheet

A handwritten lead sheet for the song "Barkarole". The page features four staves of musical notation. The first three staves are in treble clef (G), with key signatures of two sharps (#). The fourth staff is in bass clef (F), also with two sharps (#). Measure numbers 58, 59, 60, and 61 are written above the staves. The music consists of eighth-note patterns, with some notes connected by horizontal lines. Measures 58 and 59 begin with a single note followed by a dotted half note. Measures 60 and 61 continue the pattern. Measure 61 concludes with a bass note followed by a double bar line.

68 6
couplet, Les oiseaux dans la chaireille Lead Sheet

1

Handwritten musical score for 'Les oiseaux dans la chaireille' (Lead Sheet). The score consists of three staves, each with a different key signature and time signature. The first staff starts in G major (68 6) and includes chords like Am and D7. The second staff starts in E minor (Em) and includes chords like Em and G. The third staff starts in G major (G) and includes chords like Bm and F#7. The score features various musical markings such as trills, grace notes, and dynamic changes. The page number 1 is in the top right corner.

Couplet, Les Oiseaux dans la charmille 2 4

Handwritten musical score for 'Les Oiseaux dans la charmille' in 6/8 time. The score consists of 12 staves of music with various dynamics, articulations, and harmonic markings like A7/D, D7, and G. The vocal line includes lyrics like 'Saut' and 'Saut'. The score is numbered from 35 to 64.

Key signatures: G major (35-40), A major (41-44), D major (45-46), A major (47-50), E major (51-53), A major (54-56), D major (57-59), A major (60-62).

Harmonic markings: 35 G, 36 D, 37 Gm, 38 A7/D, 39 A7/D, 40 A7/D, 41 A7/D, 42 A7/D, 43 A7/D, 44 A7/D, 45 D7, 46 D7, 47 A7, 48 A7, 49 A7, 50 A7, 51 A7, 52 D7, 53 G, 54 A7, 55 C, 56 A7, 57 D, 58 G, 59 G, 60 G, 61 D7, 62 A7, 63 tr. ind. 64 G.

Articulations: Saut, XX, Saut, Saut, Saut, Saut, Saut, Saut, Saut, Saut, Saut, Saut.



6
8
Couplet, Les oiseaux dans la charnière
Lead Sheet 3

65 C' 66 Am 67 D7 68 E7

69



A Cup of Coffee, a Sandwich and You

1

Lead Sheet

C **Antro**

Verses

1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 |

Bb Gb7 Bb D7b5/Ab G7
C7 F7 Bb Fm/Ab
#) #) 12 G7 Gm7 F 13 Bb 14 Gb7 15 Bb D7b5/Ab
16 G7 C7 C7 19 Fm F7
20 Fm F7 Fm F7 21 Gm 22 Dm
23 Gm 24 G7 25 C7 26 C7 C7+
27 F7 28 F7 F7+ 29 Refrain Bb
30 Ebm 31 Bb Bb 32 Bb Bb
33 Cm7 F7 34 Cm7 F7 35 Bb Bb
36 F7/C F7+ 37 Bb 38 Ebm
39 Bb Bb Bb 40 Bb 41 Cm7 F7 42 Gm7 F7



♪ a Cup of Coffee, a Sandwich and You lead Sheet 2

43 Bb 44 Eb/Bb 45 Bb7 46 Eb7
 47 Dm 48 D7 49 G7 50 C7
 51 Fm 52 F#7 53 Bb
 54 Ebm 55 Bb 56 Bb 57 B°
 57 Cm7 58 Cm7 59 Bb 60 Cm7 F7+
 61 Bb 62 Eb/Bb 63 - ||



Lá ci darem la mano Lead Sheet

1

1

1 A - 2 A 3 Bm 4 B⁷ E B⁷

5 E 7 A E⁷ X 6 A 7 Bm 8 D

9 A X 10 Bm E⁷ A

11 Bm D⁷ 12 E B⁷ 13 E⁷ A E⁷ 14 A

15 Bm Bm⁷ 16 E 17 A E⁷

18 A E⁷ 19 A 20 E - A

- - - -

21 E 22 B 23 E

- - -

24 E - A 25 E 26 B

- - -

2
Là ci darem la mano Lead Sheet [2]

27 E | B7 | E | B7 |
 28 E | B7 |
 29 E | 30 E7 | 31 A |
 32 Bm | B7 | 33 E | B7 | 34 E | A E7 |
 35 A | 36 D | 37 E7 |
 38 A | 39 D | 40 E7 |
 41 A | 42 A E |
 23



Là ci darem la mano Lead Sheet

3

2 6
4 8

43 A 44 A E7

45 A C#7 46 C#m A7

47 D Bm * 48 E C#m

49 F#m * 50 E7 51 A

52 A 53 A 54 A

55 A 56 A E7 57 A 58 D E7



6
8

Là ci darem la mano Lead Sheet [4]

Treble clef, key signature A major (no sharps or flats). Time signature 6/8. Measures 59-65.

Measure 59: A (two eighth notes)

Measure 60: A (two eighth notes)

Measure 61: A (two eighth notes)

Measure 62: A⁷ (two eighth notes), D (one eighth note), A (one eighth note)

Measure 63: A (one eighth note), G^m (one eighth note)

Measure 64: A (one eighth note), E⁷ (one eighth note)

Measure 65: A (one eighth note), E⁷ (one eighth note)

Measures 66-67: D (one eighth note), A⁷ (one eighth note), D⁷ (one eighth note), A⁷ (one eighth note)

Measures 68-69: A (one eighth note), E⁷ (one eighth note), A⁷ (one eighth note), A⁷ (one eighth note)

Measures 70-71: D (one eighth note), E (one eighth note), A (one eighth note), E (one eighth note)

Measures 72-73: A (one eighth note), E (one eighth note), A⁷ (one eighth note), E (one eighth note)

Measures 74-76: A (two eighth notes), E⁷ (one eighth note), A⁷ (one eighth note), A (one eighth note), E⁷ (one eighth note)

Measures 77-79: A⁷ (one eighth note), A (one eighth note), E⁷ (one eighth note), A⁷ (one eighth note), E⁷ (one eighth note)

Measures 80-81: A (one eighth note), E⁷ (one eighth note), A⁷ (one eighth note), E⁷ (one eighth note)



6
 8
 La ci darum la mano Lead sheet 5
 79 A^B | E^F | A^B | E^F | A^B | E
 80 | - | - | - | - | - | - |
 81 | - | - | - | - | - | - |
 82 A^B | E^F | A^B | E^F | A^B | E
 83 | - | - | - | - | - | - |
 84 | - | - | - | - | - | - |
 85 | - | - | - | - | - | - |

Index

April Showers	2
Barcarole (Belle nuit, ô nuit d'amour)	13
By The Light Of The Silvery Moon	6
Carolina in the Morning	8
Chicago (That Toddling Town)	11
Chord Symbols Explained	1
Contes d'Hoffmann, Les	13
Cup of Coffee, a Sandwich and You, A	20
Don Giovanni	22
Là ci darem la mano	22
Oiseaux dans les charmille, Les	17

GNU GENERAL PUBLIC LICENSE
Version 3, 29 June 2007

Copyright (C) 2007 Free Software Foundation, Inc. <<https://fsf.org/>>
Everyone is permitted to copy and distribute verbatim copies
of this license document, but changing it is not allowed.

Preamble

The GNU General Public License is a free, copyleft license for software and other kinds of works.

The licenses for most software and other practical works are designed to take away your freedom to share and change the works. By contrast, the GNU General Public License is intended to guarantee your freedom to share and change all versions of a program--to make sure it remains free software for all its users. We, the Free Software Foundation, use the GNU General Public License for most of our software; it applies also to any other work released this way by its authors. You can apply it to your programs, too.

When we speak of free software, we are referring to freedom, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for them if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs, and that you know you can do these things.

To protect your rights, we need to prevent others from denying you these rights or asking you to surrender the rights. Therefore, you have certain responsibilities if you distribute copies of the software, or if you modify it: responsibilities to respect the freedom of others.

For example, if you distribute copies of such a program, whether gratis or for a fee, you must pass on to the recipients the same freedoms that you received. You must make sure that they, too, receive or can get the source code. And you must show them these terms so they know their rights.

Developers that use the GNU GPL protect your rights with two steps: (1) assert copyright on the software, and (2) offer you this License giving you legal permission to copy, distribute and/or modify it.

For the developers' and authors' protection, the GPL clearly explains that there is no warranty for this free software. For both users' and authors' sake, the GPL requires that modified versions be marked as changed, so that their problems will not be attributed erroneously to authors of previous versions.

Some devices are designed to deny users access to install or run modified versions of the software inside them, although the manufacturer can do so. This is fundamentally incompatible with the aim of protecting users' freedom to change the software. The systematic pattern of such abuse occurs in the area of products for individuals to use, which is precisely where it is most unacceptable. Therefore, we have designed this version of the GPL to prohibit the practice for those products. If such problems arise substantially in other domains, we stand ready to extend this provision to those domains in future versions of the GPL, as needed to protect the freedom of users.

Finally, every program is threatened constantly by software patents. States should not allow patents to restrict development and use of

software on general-purpose computers, but in those that do, we wish to avoid the special danger that patents applied to a free program could make it effectively proprietary. To prevent this, the GPL assures that patents cannot be used to render the program non-free.

The precise terms and conditions for copying, distribution and modification follow.

TERMS AND CONDITIONS

0. Definitions.

"This License" refers to version 3 of the GNU General Public License.

"Copyright" also means copyright-like laws that apply to other kinds of works, such as semiconductor masks.

"The Program" refers to any copyrightable work licensed under this License. Each licensee is addressed as "you". "Licensees" and "recipients" may be individuals or organizations.

To "modify" a work means to copy from or adapt all or part of the work in a fashion requiring copyright permission, other than the making of an exact copy. The resulting work is called a "modified version" of the earlier work or a work "based on" the earlier work.

A "covered work" means either the unmodified Program or a work based on the Program.

To "propagate" a work means to do anything with it that, without permission, would make you directly or secondarily liable for infringement under applicable copyright law, except executing it on a computer or modifying a private copy. Propagation includes copying, distribution (with or without modification), making available to the public, and in some countries other activities as well.

To "convey" a work means any kind of propagation that enables other parties to make or receive copies. Mere interaction with a user through a computer network, with no transfer of a copy, is not conveying.

An interactive user interface displays "Appropriate Legal Notices" to the extent that it includes a convenient and prominently visible feature that (1) displays an appropriate copyright notice, and (2) tells the user that there is no warranty for the work (except to the extent that warranties are provided), that licensees may convey the work under this License, and how to view a copy of this License. If the interface presents a list of user commands or options, such as a menu, a prominent item in the list meets this criterion.

1. Source Code.

The "source code" for a work means the preferred form of the work for making modifications to it. "Object code" means any non-source form of a work.

A "Standard Interface" means an interface that either is an official standard defined by a recognized standards body, or, in the case of interfaces specified for a particular programming language, one that is widely used among developers working in that language.

The "System Libraries" of an executable work include anything, other than the work as a whole, that (a) is included in the normal form of

packaging a Major Component, but which is not part of that Major Component, and (b) serves only to enable use of the work with that Major Component, or to implement a Standard Interface for which an implementation is available to the public in source code form. A "Major Component", in this context, means a major essential component (kernel, window system, and so on) of the specific operating system (if any) on which the executable work runs, or a compiler used to produce the work, or an object code interpreter used to run it.

The "Corresponding Source" for a work in object code form means all the source code needed to generate, install, and (for an executable work) run the object code and to modify the work, including scripts to control those activities. However, it does not include the work's System Libraries, or general-purpose tools or generally available free programs which are used unmodified in performing those activities but which are not part of the work. For example, Corresponding Source includes interface definition files associated with source files for the work, and the source code for shared libraries and dynamically linked subprograms that the work is specifically designed to require, such as by intimate data communication or control flow between those subprograms and other parts of the work.

The Corresponding Source need not include anything that users can regenerate automatically from other parts of the Corresponding Source.

The Corresponding Source for a work in source code form is that same work.

2. Basic Permissions.

All rights granted under this License are granted for the term of copyright on the Program, and are irrevocable provided the stated conditions are met. This License explicitly affirms your unlimited permission to run the unmodified Program. The output from running a covered work is covered by this License only if the output, given its content, constitutes a covered work. This License acknowledges your rights of fair use or other equivalent, as provided by copyright law.

You may make, run and propagate covered works that you do not convey, without conditions so long as your license otherwise remains in force. You may convey covered works to others for the sole purpose of having them make modifications exclusively for you, or provide you with facilities for running those works, provided that you comply with the terms of this License in conveying all material for which you do not control copyright. Those thus making or running the covered works for you must do so exclusively on your behalf, under your direction and control, on terms that prohibit them from making any copies of your copyrighted material outside their relationship with you.

Conveying under any other circumstances is permitted solely under the conditions stated below. Sublicensing is not allowed; section 10 makes it unnecessary.

3. Protecting Users' Legal Rights From Anti-Circumvention Law.

No covered work shall be deemed part of an effective technological measure under any applicable law fulfilling obligations under article 11 of the WIPO copyright treaty adopted on 20 December 1996, or similar laws prohibiting or restricting circumvention of such measures.

When you convey a covered work, you waive any legal power to forbid circumvention of technological measures to the extent such circumvention is effected by exercising rights under this License with respect to the covered work, and you disclaim any intention to limit operation or modification of the work as a means of enforcing, against the work's users, your or third parties' legal rights to forbid circumvention of technological measures.

4. Conveying Verbatim Copies.

You may convey verbatim copies of the Program's source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice; keep intact all notices stating that this License and any non-permissive terms added in accord with section 7 apply to the code; keep intact all notices of the absence of any warranty; and give all recipients a copy of this License along with the Program.

You may charge any price or no price for each copy that you convey, and you may offer support or warranty protection for a fee.

5. Conveying Modified Source Versions.

You may convey a work based on the Program, or the modifications to produce it from the Program, in the form of source code under the terms of section 4, provided that you also meet all of these conditions:

- a) The work must carry prominent notices stating that you modified it, and giving a relevant date.
- b) The work must carry prominent notices stating that it is released under this License and any conditions added under section 7. This requirement modifies the requirement in section 4 to "keep intact all notices".
- c) You must license the entire work, as a whole, under this License to anyone who comes into possession of a copy. This License will therefore apply, along with any applicable section 7 additional terms, to the whole of the work, and all its parts, regardless of how they are packaged. This License gives no permission to license the work in any other way, but it does not invalidate such permission if you have separately received it.
- d) If the work has interactive user interfaces, each must display Appropriate Legal Notices; however, if the Program has interactive interfaces that do not display Appropriate Legal Notices, your work need not make them do so.

A compilation of a covered work with other separate and independent works, which are not by their nature extensions of the covered work, and which are not combined with it such as to form a larger program, in or on a volume of a storage or distribution medium, is called an "aggregate" if the compilation and its resulting copyright are not used to limit the access or legal rights of the compilation's users beyond what the individual works permit. Inclusion of a covered work in an aggregate does not cause this License to apply to the other parts of the aggregate.

6. Conveying Non-Source Forms.

You may convey a covered work in object code form under the terms of sections 4 and 5, provided that you also convey the

machine-readable Corresponding Source under the terms of this License,
in one of these ways:

- a) Convey the object code in, or embodied in, a physical product (including a physical distribution medium), accompanied by the Corresponding Source fixed on a durable physical medium customarily used for software interchange.
- b) Convey the object code in, or embodied in, a physical product (including a physical distribution medium), accompanied by a written offer, valid for at least three years and valid for as long as you offer spare parts or customer support for that product model, to give anyone who possesses the object code either (1) a copy of the Corresponding Source for all the software in the product that is covered by this License, on a durable physical medium customarily used for software interchange, for a price no more than your reasonable cost of physically performing this conveying of source, or (2) access to copy the Corresponding Source from a network server at no charge.
- c) Convey individual copies of the object code with a copy of the written offer to provide the Corresponding Source. This alternative is allowed only occasionally and noncommercially, and only if you received the object code with such an offer, in accord with subsection 6b.
- d) Convey the object code by offering access from a designated place (gratis or for a charge), and offer equivalent access to the Corresponding Source in the same way through the same place at no further charge. You need not require recipients to copy the Corresponding Source along with the object code. If the place to copy the object code is a network server, the Corresponding Source may be on a different server (operated by you or a third party) that supports equivalent copying facilities, provided you maintain clear directions next to the object code saying where to find the Corresponding Source. Regardless of what server hosts the Corresponding Source, you remain obligated to ensure that it is available for as long as needed to satisfy these requirements.
- e) Convey the object code using peer-to-peer transmission, provided you inform other peers where the object code and Corresponding Source of the work are being offered to the general public at no charge under subsection 6d.

A separable portion of the object code, whose source code is excluded from the Corresponding Source as a System Library, need not be included in conveying the object code work.

A "User Product" is either (1) a "consumer product", which means any tangible personal property which is normally used for personal, family, or household purposes, or (2) anything designed or sold for incorporation into a dwelling. In determining whether a product is a consumer product, doubtful cases shall be resolved in favor of coverage. For a particular product received by a particular user, "normally used" refers to a typical or common use of that class of product, regardless of the status of the particular user or of the way in which the particular user actually uses, or expects or is expected to use, the product. A product is a consumer product regardless of whether the product has substantial commercial, industrial or non-consumer uses, unless such uses represent the only significant mode of use of the product.

"Installation Information" for a User Product means any methods,

procedures, authorization keys, or other information required to install and execute modified versions of a covered work in that User Product from a modified version of its Corresponding Source. The information must suffice to ensure that the continued functioning of the modified object code is in no case prevented or interfered with solely because modification has been made.

If you convey an object code work under this section in, or with, or specifically for use in, a User Product, and the conveying occurs as part of a transaction in which the right of possession and use of the User Product is transferred to the recipient in perpetuity or for a fixed term (regardless of how the transaction is characterized), the Corresponding Source conveyed under this section must be accompanied by the Installation Information. But this requirement does not apply if neither you nor any third party retains the ability to install modified object code on the User Product (for example, the work has been installed in ROM).

The requirement to provide Installation Information does not include a requirement to continue to provide support service, warranty, or updates for a work that has been modified or installed by the recipient, or for the User Product in which it has been modified or installed. Access to a network may be denied when the modification itself materially and adversely affects the operation of the network or violates the rules and protocols for communication across the network.

Corresponding Source conveyed, and Installation Information provided, in accord with this section must be in a format that is publicly documented (and with an implementation available to the public in source code form), and must require no special password or key for unpacking, reading or copying.

7. Additional Terms.

"Additional permissions" are terms that supplement the terms of this License by making exceptions from one or more of its conditions. Additional permissions that are applicable to the entire Program shall be treated as though they were included in this License, to the extent that they are valid under applicable law. If additional permissions apply only to part of the Program, that part may be used separately under those permissions, but the entire Program remains governed by this License without regard to the additional permissions.

When you convey a copy of a covered work, you may at your option remove any additional permissions from that copy, or from any part of it. (Additional permissions may be written to require their own removal in certain cases when you modify the work.) You may place additional permissions on material, added by you to a covered work, for which you have or can give appropriate copyright permission.

Notwithstanding any other provision of this License, for material you add to a covered work, you may (if authorized by the copyright holders of that material) supplement the terms of this License with terms:

- a) Disclaiming warranty or limiting liability differently from the terms of sections 15 and 16 of this License; or
- b) Requiring preservation of specified reasonable legal notices or author attributions in that material or in the Appropriate Legal Notices displayed by works containing it; or
- c) Prohibiting misrepresentation of the origin of that material, or

- requiring that modified versions of such material be marked in reasonable ways as different from the original version; or
- d) Limiting the use for publicity purposes of names of licensors or authors of the material; or
 - e) Declining to grant rights under trademark law for use of some trade names, trademarks, or service marks; or
 - f) Requiring indemnification of licensors and authors of that material by anyone who conveys the material (or modified versions of it) with contractual assumptions of liability to the recipient, for any liability that these contractual assumptions directly impose on those licensors and authors.

All other non-permissive additional terms are considered "further restrictions" within the meaning of section 10. If the Program as you received it, or any part of it, contains a notice stating that it is governed by this License along with a term that is a further restriction, you may remove that term. If a license document contains a further restriction but permits relicensing or conveying under this License, you may add to a covered work material governed by the terms of that license document, provided that the further restriction does not survive such relicensing or conveying.

If you add terms to a covered work in accord with this section, you must place, in the relevant source files, a statement of the additional terms that apply to those files, or a notice indicating where to find the applicable terms.

Additional terms, permissive or non-permissive, may be stated in the form of a separately written license, or stated as exceptions; the above requirements apply either way.

8. Termination.

You may not propagate or modify a covered work except as expressly provided under this License. Any attempt otherwise to propagate or modify it is void, and will automatically terminate your rights under this License (including any patent licenses granted under the third paragraph of section 11).

However, if you cease all violation of this License, then your license from a particular copyright holder is reinstated (a) provisionally, unless and until the copyright holder explicitly and finally terminates your license, and (b) permanently, if the copyright holder fails to notify you of the violation by some reasonable means prior to 60 days after the cessation.

Moreover, your license from a particular copyright holder is reinstated permanently if the copyright holder notifies you of the violation by some reasonable means, this is the first time you have received notice of violation of this License (for any work) from that copyright holder, and you cure the violation prior to 30 days after your receipt of the notice.

Termination of your rights under this section does not terminate the licenses of parties who have received copies or rights from you under this License. If your rights have been terminated and not permanently reinstated, you do not qualify to receive new licenses for the same material under section 10.

9. Acceptance Not Required for Having Copies.

You are not required to accept this License in order to receive or run a copy of the Program. Ancillary propagation of a covered work occurring solely as a consequence of using peer-to-peer transmission to receive a copy likewise does not require acceptance. However, nothing other than this License grants you permission to propagate or modify any covered work. These actions infringe copyright if you do not accept this License. Therefore, by modifying or propagating a covered work, you indicate your acceptance of this License to do so.

10. Automatic Licensing of Downstream Recipients.

Each time you convey a covered work, the recipient automatically receives a license from the original licensors, to run, modify and propagate that work, subject to this License. You are not responsible for enforcing compliance by third parties with this License.

An "entity transaction" is a transaction transferring control of an organization, or substantially all assets of one, or subdividing an organization, or merging organizations. If propagation of a covered work results from an entity transaction, each party to that transaction who receives a copy of the work also receives whatever licenses to the work the party's predecessor in interest had or could give under the previous paragraph, plus a right to possession of the Corresponding Source of the work from the predecessor in interest, if the predecessor has it or can get it with reasonable efforts.

You may not impose any further restrictions on the exercise of the rights granted or affirmed under this License. For example, you may not impose a license fee, royalty, or other charge for exercise of rights granted under this License, and you may not initiate litigation (including a cross-claim or counterclaim in a lawsuit) alleging that any patent claim is infringed by making, using, selling, offering for sale, or importing the Program or any portion of it.

11. Patents.

A "contributor" is a copyright holder who authorizes use under this License of the Program or a work on which the Program is based. The work thus licensed is called the contributor's "contributor version".

A contributor's "essential patent claims" are all patent claims owned or controlled by the contributor, whether already acquired or hereafter acquired, that would be infringed by some manner, permitted by this License, of making, using, or selling its contributor version, but do not include claims that would be infringed only as a consequence of further modification of the contributor version. For purposes of this definition, "control" includes the right to grant patent sublicenses in a manner consistent with the requirements of this License.

Each contributor grants you a non-exclusive, worldwide, royalty-free patent license under the contributor's essential patent claims, to make, use, sell, offer for sale, import and otherwise run, modify and propagate the contents of its contributor version.

In the following three paragraphs, a "patent license" is any express agreement or commitment, however denominated, not to enforce a patent (such as an express permission to practice a patent or covenant not to sue for patent infringement). To "grant" such a patent license to a party means to make such an agreement or commitment not to enforce a

patent against the party.

If you convey a covered work, knowingly relying on a patent license, and the Corresponding Source of the work is not available for anyone to copy, free of charge and under the terms of this License, through a publicly available network server or other readily accessible means, then you must either (1) cause the Corresponding Source to be so available, or (2) arrange to deprive yourself of the benefit of the patent license for this particular work, or (3) arrange, in a manner consistent with the requirements of this License, to extend the patent license to downstream recipients. "Knowingly relying" means you have actual knowledge that, but for the patent license, your conveying the covered work in a country, or your recipient's use of the covered work in a country, would infringe one or more identifiable patents in that country that you have reason to believe are valid.

If, pursuant to or in connection with a single transaction or arrangement, you convey, or propagate by procuring conveyance of, a covered work, and grant a patent license to some of the parties receiving the covered work authorizing them to use, propagate, modify or convey a specific copy of the covered work, then the patent license you grant is automatically extended to all recipients of the covered work and works based on it.

A patent license is "discriminatory" if it does not include within the scope of its coverage, prohibits the exercise of, or is conditioned on the non-exercise of one or more of the rights that are specifically granted under this License. You may not convey a covered work if you are a party to an arrangement with a third party that is in the business of distributing software, under which you make payment to the third party based on the extent of your activity of conveying the work, and under which the third party grants, to any of the parties who would receive the covered work from you, a discriminatory patent license (a) in connection with copies of the covered work conveyed by you (or copies made from those copies), or (b) primarily for and in connection with specific products or compilations that contain the covered work, unless you entered into that arrangement, or that patent license was granted, prior to 28 March 2007.

Nothing in this License shall be construed as excluding or limiting any implied license or other defenses to infringement that may otherwise be available to you under applicable patent law.

12. No Surrender of Others' Freedom.

If conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot convey a covered work so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not convey it at all. For example, if you agree to terms that obligate you to collect a royalty for further conveying from those to whom you convey the Program, the only way you could satisfy both those terms and this License would be to refrain entirely from conveying the Program.

13. Use with the GNU Affero General Public License.

Notwithstanding any other provision of this License, you have permission to link or combine any covered work with a work licensed under version 3 of the GNU Affero General Public License into a single combined work, and to convey the resulting work. The terms of this License will continue to apply to the part which is the covered work,

but the special requirements of the GNU Affero General Public License, section 13, concerning interaction through a network will apply to the combination as such.

14. Revised Versions of this License.

The Free Software Foundation may publish revised and/or new versions of the GNU General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Program specifies that a certain numbered version of the GNU General Public License "or any later version" applies to it, you have the option of following the terms and conditions either of that numbered version or of any later version published by the Free Software Foundation. If the Program does not specify a version number of the GNU General Public License, you may choose any version ever published by the Free Software Foundation.

If the Program specifies that a proxy can decide which future versions of the GNU General Public License can be used, that proxy's public statement of acceptance of a version permanently authorizes you to choose that version for the Program.

Later license versions may give you additional or different permissions. However, no additional obligations are imposed on any author or copyright holder as a result of your choosing to follow a later version.

15. Disclaimer of Warranty.

THERE IS NO WARRANTY FOR THE PROGRAM, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE PROGRAM "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

16. Limitation of Liability.

IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MODIFIES AND/OR CONVEYS THE PROGRAM AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PROGRAM (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE PROGRAM TO OPERATE WITH ANY OTHER PROGRAMS), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

17. Interpretation of Sections 15 and 16.

If the disclaimer of warranty and limitation of liability provided above cannot be given local legal effect according to their terms, reviewing courts shall apply local law that most closely approximates an absolute waiver of all civil liability in connection with the Program, unless a warranty or assumption of liability accompanies a copy of the Program in return for a fee.

END OF TERMS AND CONDITIONS

How to Apply These Terms to Your New Programs

If you develop a new program, and you want it to be of the greatest possible use to the public, the best way to achieve this is to make it free software which everyone can redistribute and change under these terms.

To do so, attach the following notices to the program. It is safest to attach them to the start of each source file to most effectively state the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

<one line to give the program's name and a brief idea of what it does.>
Copyright (C) <year> <name of author>

This program is free software: you can redistribute it and/or modify it under the terms of the GNU General Public License as published by the Free Software Foundation, either version 3 of the License, or (at your option) any later version.

This program is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public License for more details.

You should have received a copy of the GNU General Public License along with this program. If not, see <<https://www.gnu.org/licenses/>>.

Also add information on how to contact you by electronic and paper mail.

If the program does terminal interaction, make it output a short notice like this when it starts in an interactive mode:

<program> Copyright (C) <year> <name of author>
This program comes with ABSOLUTELY NO WARRANTY; for details type 'show w'.
This is free software, and you are welcome to redistribute it
under certain conditions; type 'show c' for details.

The hypothetical commands 'show w' and 'show c' should show the appropriate parts of the General Public License. Of course, your program's commands might be different; for a GUI interface, you would use an "about box".

You should also get your employer (if you work as a programmer) or school, if any, to sign a "copyright disclaimer" for the program, if necessary. For more information on this, and how to apply and follow the GNU GPL, see <<https://www.gnu.org/licenses/>>.

The GNU General Public License does not permit incorporating your program into proprietary programs. If your program is a subroutine library, you may consider it more useful to permit linking proprietary applications with the library. If this is what you want to do, use the GNU Lesser General Public License instead of this License. But first, please read <<https://www.gnu.org/licenses/why-not-lgpl.html>>.